SIEMENS

COHERENCE RT Archive
SIENET MagicView 300 VA42A

HS

DICOM Conformance Statement

Rev. 12.0

05-Aug-2003

Copyright by SIEMENS AG Medical Solutions, Health Services

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

This page is intentionally left blank.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

This page is intentionally left blank.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Table of Contents

Table of Contents 4
List of Figures 8
List of Tables 9
Part I 10
1 Introduction 11
1.1 Purpose 11
1.2 Definitions, Acronyms and Abbreviations 11
1.3 References 11
2 Implementation Model 12
2.1 Application Data Flow Diagram 12
2.2 Functional Definitions of Application Entities 15
2.3 Sequencing of Real World Activities 15
3 Application Entity Specifications 16
3.1 AE Specification 16
3.1.1 Association Establishment Policies 18
3.1.1.1 General 18
3.1.1.2 Number of Associations 18
3.1.1.3 Asynchronous Nature 18
3.1.1.4 Implementation Identifying Information 19
3.1.2 Association Initiation Policy 19
3.1.2.1 Real-World Activity - Verification SCU (C-ECHO request) 20
3.1.2.1.1 Associated Real-World Activity 20
3.1.2.1.2 Proposed Presentation Contexts 20
3.1.2.1.3 SOP Specific Conformance Statement - Verification SCU 20
3.1.2.2 Real-World Activity - Send Image Objects to a Remote Node 21
3.1.2.2.1 Associated Real-World Activity - Send Image Objects to a Remote Node 21
3.1.2.2.2 Proposed Presentation Contexts 21
3.1.2.2.3 SOP Specific Conformance Statement 29
3.1.2.3 Real-World Activity - Query the Image Database of a Remote Node 30
3.1.2.3.1 Associated Real-World Activity - Query the Image Database of a Remote Node 30
3.1.2.3.2 Proposed Presentation Contexts 30
3.1.2.3.3 SOP Specific Conformance Statement 30
3.1.2.4 Real-World Activity - Retrieve Image Objects from a Remote Node 33
3.1.2.4.1 Associated Real-World Activity - Retrieve Image Objects from a Remote Node 33
3.1.2.4.2 Proposed Presentation Contexts 33

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.2.4.3 SOP Specific Conformance Statement 34
3.1.2.5 Real-World Activity - Query Worklist of a Remote Node 35
3.1.2.5.1 Associated Real-World Activity - Query Worklist of a Remote Node 35
3.1.2.5.2 Proposed Presentation Contexts 35
3.1.2.5.3 SOP Specific Conformance Statement 35
3.1.2.6 Real-World Activity - Send Print Request to a Remote Node 38
3.1.2.7 Real-World Activity - Storage Commitment SCU 47
3.1.2.7.1 Associated Real-World Activity 47
3.1.2.7.2 Proposed Presentation Contexts 47
3.1.2.7.3 SOP Specific Conformance Statement 47
3.1.3 Association Acceptance Policy. 48
3.1.3.1 Real-World Activity - Receive Echo 48
3.1.3.1.1 Associated Real-World Activity - respond to echo request . . . 48
3.1.3.1.2 Proposed Presentation Contexts 48
3.1.3.1.3 SOP Specific Conformance to the Verification SOP Class . . . 48
3.1.3.2 Real-World Activity - Receive Image Objects from a Remote Node . 49
3.1.3.2.1 Associated Real-World Activity -Receive Image Objects from a Remote Node 49
3.1.3.2.2 Accepted Presentation Contexts 49
3.1.3.2.3 SOP Specific Conformance Statement 57
3.1.3.3 Real World Activity - Receive Query Request from a Remote Node . 57
3.1.3.3.1 Associated Real World Activity - Respond to Find Request. . . 57
3.1.3.3.2 Accepted Presentation Contexts 57
3.1.3.3.3 SOP Specific Conformance Statement 58
3.1.3.4 Real-World Activity - Receive Transfer Request from a Remote Node60
3.1.3.4.1 Associated Real-World Activity - Initiate Image Transfer. . . . 60
3.1.3.4.2 Accepted Presentation Contexts 60
3.1.3.4.3 SOP Specific Conformance Statement 61
3.1.3.5 Real-World Activity - Storage Commitment SCP 62
3.1.3.5.1 Associated Real-World Activity 62
3.1.3.5.2 Proposed Presentation Contexts 62
3.1.3.5.3 SOP Specific Conformance Statement 62
3.1.4 Transfer Syntax Selection 63

4 Communication Profiles. 64
4.1 Supported Communication Stacks 64
4.1.1 TCP/IP Stack 64
4.1.1.1 Physical Media Support 64

5 Extensions/Privatizations/Specializations 65
5.1 Standard Extended/ Specialized/Private SOPs 65
5.1.1 Mitra Report Management SOP Class 65
5.1.1.1 Real World Activity - Mitra Report Management 65
5.1.1.1.1 Associated Real World Activity - Mitra Report Management . . 65
5.1.1.1.2 Presentation Context Table - Mitra Report Management 65
5.1.1.1.3 SOP Specific Conformance - Mitra Report Management 66

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

5.2 Private Transfer Syntaxes 67

6 Configuration 68

6.1 AE Title / Presentation Address Mapping 68

6.2 Configurable Parameters 68

7 Support of Extended Character Sets 69

Part II - Media Storage 70

8 Introduction 71

8.1 Purpose 71

8.2 Definitions, Abbreviations 71

8.2.1 Definitions 71

8.2.2 Abbreviations 71

8.3 References 71

8.4 Connectivity and Interoperability 72

9 Implementation Model 73

9.1 Application Data Flow Diagram 73

9.2 Functional definitions of Application Entities 73

9.3 Sequencing of Real World Activities 74

9.4 File Meta Information Options 74

10 Application Entity Specifications 75

10.1 MagicView 300 CDR/Archive Specification 75

10.1.1 File Meta Information for the Application Entity 75

10.1.2 Real-World Activities for this Application Entity 75

10.1.2.1 Real-World Activity: Create new File Set onto an unwritten medium .75

10.1.2.1.1 Application Profiles for the RWA: Create new File Set onto an unwritten medium 75

10.1.2.2 Real-World Activity: Browse Directory Information 76

10.1.2.2.1 Application Profiles for the RWA: Browse Directory Information76

10.1.2.3 Real-World Activity: Import into local Storage or Viewer 76

10.1.2.3.1 Application Profiles for the RWA: Import into local Storage or Viewer 76

10.1.2.4 Real-World Activity: Export to local Archive Media 76

10.1.2.4.1 Application Profiles for the RWA: Export to local Archive Media 76

10.1.3 Application profiles 77

10.1.3.1 STD-GEN-CD, STD-GEN-DVD-RAM 77

10.1.3.2 STD-US-ID-MF-CDR, STD-US-ID-MF-DVD-RAM(Single- and multi-frame) 78

11 Augmented Profiles 79

11.1 Augmented Application Profiles 79

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

11.1.1 AUG-US-ID-MF-CDR, AUG-US-ID-MF-DVD-RAM 79

Appendix A: Requirements for Viewing of DICOM Images 80

Appendix B: Restrictions for Viewing of DICOM Images 82

Index 83

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

List of Figures

Figure 1: Application Data Flow Diagram.....14

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

List of Tables

Table 1: Verification SCU Presentation Contexts of MagicView 300 20
Table 2: STORE SCU Presentation Contexts of MagicView 300 21
Table 3: Query SCU Presentation Contexts of MagicView 300 30
Table 4: Supported attributes at Patient Level 31
Table 5: Supported attributes at Study Level 31
Table 6: Supported Attributes at Series level: 32
Table 7: C-Move SCU Presentation Contexts of MagicView 300 33
Table 8: Basic Worklist SCU Presentation Contexts of MagicView 300 35
Table 9: Supported search key attributes 35
Table 10: Supported return key attributes 36
Table 11: MagicView 300 Print Management SCU Presentation Contexts of 38
Table 12: Used DIMSE services 39
Table 13: Supported N_CREATE attributes 39
Table 14: Status handling 40
Table 15: Used DIMSE services 41
Table 16: Mandatory Film Box N-Create attributes 41
Table 17: Status handling 43
Table 18: Used DIMSE services 44
Table 19: Supported N_SET attributes 44
Table 20: Used DIMSE services 45
Table 21: Supported N_SET attributes 45
Table 22: Used DIMSE services 46
Table 23: Mandatory Printer N-GET attributes. 46
Table 24: Default values for timing demands 46
Table 25: SC SCU Presentation Contexts of MagicView 300 47
Table 26: Echo SCP Presentation Contexts of MagicView 300 48
Table 27: STORE SCP Accepted Presentation Contexts of MagicView 300 49
Table 28: Query SCP Presentation Contexts of MagicView 300 57
Table 29: Supported Patient Level Attributes 58
Table 30: Supported Study Level Attributes 58
Table 31: Supported Series Level Attributes 59
Table 32: Supported Study Level attributes 59
Table 33: Retrieve SCP Presentation Contexts of MagicView 300 60
Table 34: SC SCU Presentation Contexts of MagicView 300 62
Table 35: Presentation Contexts 65
Table 36: Mitra Report Information Model Attributes 66
Table 37: Application profiles, Activities, and Roles for MagicView 300 CDR/Archive .. 75
Table 38: STD-GEN Supported SOP Classes 77
Table 39: STD-US-ID-MF-xxx Supported SOP Classes 78
Table 41: AUG-US-ID-MF-xxx Supported SOP Classes 79
Table 40: Augmented Application profiles, Activities, and Roles for MagicView 300 CDR/ Archive 79

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Part I

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

1 Introduction

1.1 Purpose

This DICOM Conformance Statement is written according to part PS 3.2 of [1].

This DICOM Conformance Statement describes the DICOM Interface of the SIEMENS implementation of a Medical Imaging Viewing Station (SIENET MagicView 300) running Software Version VA42A.

1.2 Definitions, Acronyms and Abbreviations

ACR	**A**merican **C**ollege of **R**adiology
AE	DICOM **A**pplication **E**ntity
DBP	**D**ICOM **B**asic **P**rint User
DQRY	**D**ICOM **Q**ue**ry**
DQUS	**D**ICOM **Q**uery **Us**er
FSC	**F**ile **S**et **C**reator
FSR	**F**ile **S**et **R**eader
FSU	**F**ile **S**et **U**pdater
IOD	DICOM **I**nformation **O**bject **D**efinition
MV300	**M**agic**V**iew **300**, a SIENET Viewing Station
NEMA	**N**ational **E**lectrical **M**anufacturers **A**ssociation
NI	**N**etwork **I**nterface of the SIENET MagicView 300
PDU	**P**rotocol **D**ata **U**nit
SC	**S**torage **C**ommitment
SCU	DICOM **S**ervice **C**lass **U**ser (client using this DICOM service)
SCP	DICOM **S**ervice **C**lass **P**rovider (server providing this service)
SOP	**S**ervice/**O**bject **P**air
UID	**U**nique **ID**entifier, string unique in the whole network

1.3 References

[1] Digital Imaging and Communications in Medicine (DICOM), NEMA PS 3.1-15

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

2 Implementation Model

Siemens MagicView 300 DICOM Interface is implemented to support DICOM Application Entities (AE) as SCP which receive associations from remote Application Entities.

Siemens MagicView 300 DICOM Interface originates associations for Storage of DICOM Composite Information Objects in Remote Application Entities.

Siemens MagicView 300 DICOM Interface is implemented to act as SCU/SCP for the Storage Commitment Push Model Service using the Storage Commitment Service Class.

Siemens MagicView 300 DICOM Interface originates associations for Query and Retrieve of DICOM Composite Information Objects stored in Remote Application Entities.

Siemens MagicView 300 DICOM Interface originates associations for Query of Worklists stored in remote Application Entities.

Siemens MagicView 300 DICOM Interface originates associations for Print using Normalized classes. These Normalized Service Classes can work on objects and can create, delete, update or take action upon these objects.

2.1 Application Data Flow Diagram

The Network Interface (NI) handles the DICOM communication for SIENET MagicView 300.

This Interface starts automatically and will be invoked automatically via the integrated SIENET Magic-View 300 user-interface.

- A remote Application Entity (AE) initiates an association for the DICOM Storage Service Class to the AE of NI. Upon acceptance of the association by NI the remote AE transmits the DICOM Information Objects to the NI receiver. After an object is received, NI initiates the transfer of the DICOM objects to the MagicView 300 image database.
- A remote AE initiates an association for the DICOM Query/Retrieve Service Class to the AE of NI. Upon acceptance of the association by NI the remote AE transmits DICOM Query/Retrieve Requests to the NI query provider.
  - In case of a C-Find Request the NI query provider queries the database of MagicView 300 and generates a response for each match. The responses are sent back to the remote AE via DICOM query responses.
  - In case of a C-Move Request the NI query Provider queries the database of MagicView 300 and initiates a Storage request for each match. A final Retrieve Response is sent back to the remote AE.*
- NI initiates associations for DICOM Storage Service Class to remote AEs. For each remote DICOM node a new association to the corresponding remote DICOM AE is initiated. The DICOM objects are sent by NI sender via that open association.
- For request for storage commitment, the NI acting as SC SCU initiates association with remote AE (SC SCP), then sends N-Action request message and closes the association after receiving the N-Action response from the SC SCP. The NI waits then for and accept the incoming association from the SC SCP. The SC SCU has to receive the N_Event_Report request message from the SC SCP and then has to send a N_Event_Report response back to the SC SCP after which the SC SCP closes the association.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

- To provide storage commitment, the NI acting as SC SCP waits for new association to be opened by a remote AE acting as SC SCU. On receipt of a N-Action request message the NI sends a N-Action response message back to the SC SCU. After processing the commitment request (see note below), the NI notifies the commitment to the SC SCU by opening an association and sending a N_Event_Report request message to the SC SCU. Upon receiving the N_Event_Report response message from the SC SCU, the NI closes the association.

  Note: The storage commitment is provided only for those data, which are stored at the long-term archive (DVD of CD-R Jukebox). The N_Event_Report request message notifying the commitment is sent after successful burning to CD-R/DVD.

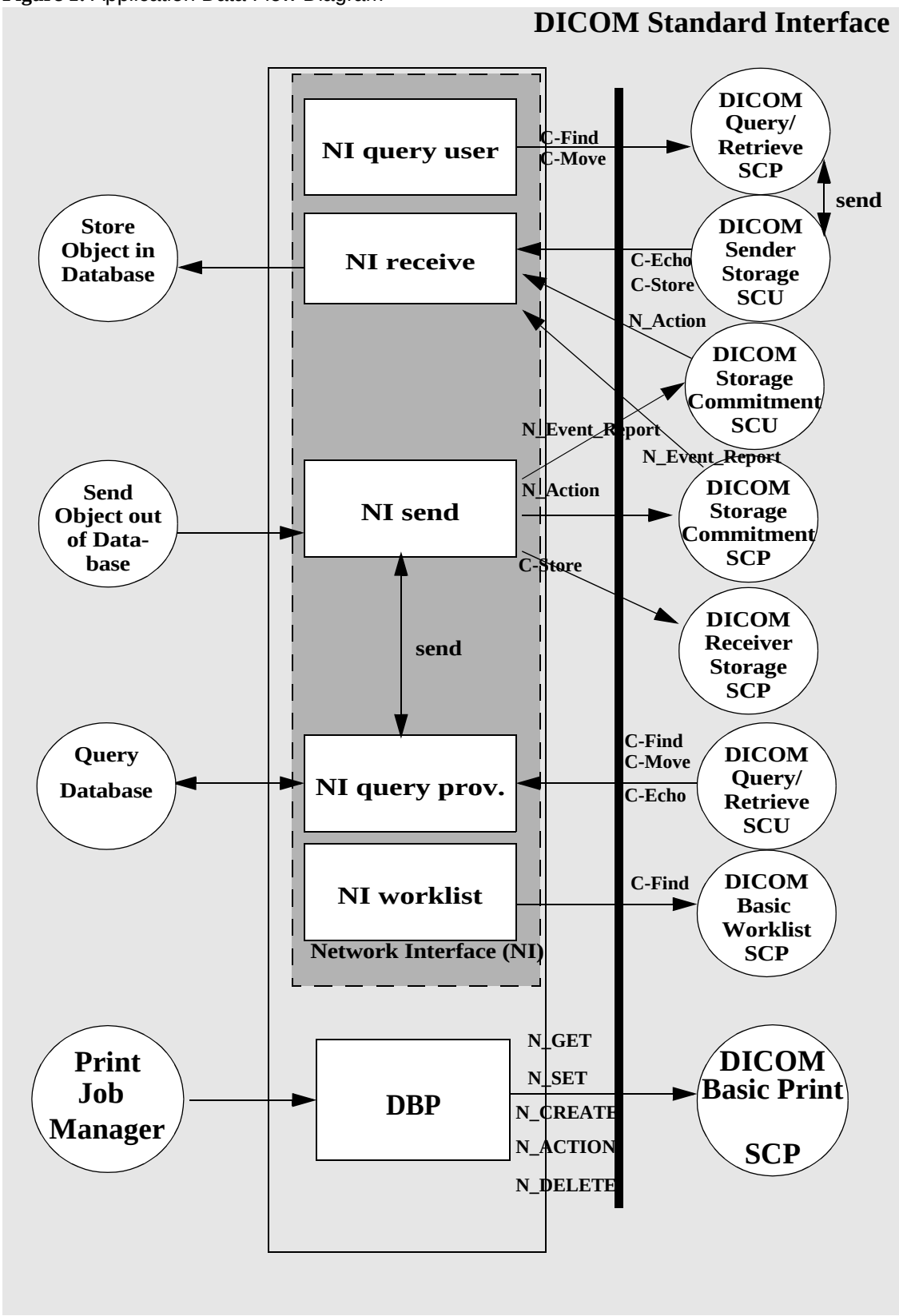
- NI initiates associations for DICOM Query / Retrieve Service Class to remote AEs.
- NI initiates associations for DICOM Basic Worklist Service Class to remote AEs.*
- DBP initiates association for Siemens MagicView 300 DICOM Basic Print to remote AEs.*
- CD Module reads DICOM Media Storage (FSR) and loads SOP Instance files into viewer (STD-GEN-CD Profile)
  CD Module writes DICOM Media Storage (FSC) in a most recent write session.*

* Query SCP, Worklist SCU, Print SCU and Media Storage are available only with some Licensed Applications.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Figure 1: Application Data Flow Diagram



Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

2.2 Functional Definitions of Application Entities

The components NI send, NI receive and NI query provider are running in PcvNetService which starts automatically on OS startup. The NI query user are foreground operations which are invoked by the user.

NI receive acting as a SCP is waiting for association requests from a remote DICOM client. The Application Entity Title the SCP is listening on is taken from the local configuration. The Port Number is 104.

NI query provider acting as a SCP is waiting for association requests from a remote DICOM client. The Application Entity Title the SCP is listening on is taken from the local configuration. The Port Number is 104.

NI send acting as a SCU is waiting for requests from the Application. When a request is received, NI send initiates an association with a remote Application Entity.

NI query user acting as a SCU is waiting for requests from the User. When a request is started, NI query user initiates an association with a remote Application Entity.

NI worklist acting as a SCU is waiting for requests from the application. When a request is received, NI worklist initiates an association with a remote Application Entity.

DBP acting as a SCU waits for print requests from the workstation's user. DBP initiates an association with a remote Application Entity and sents DICOM Basic Print Requests.

2.3 Sequencing of Real World Activities

not applicable.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3 Application Entity Specifications

3.1 AE Specification

MagicView 300 Network Interface provides one Application Entity.

The Siemens MagicView 300 provides Standard Conformance to the following DICOM Storage SOP Classes as an SCU and SCP:

Storage SOP Classes as an SCU and SCP

- CR (Computed Radiography) Image Storage
- CT Image Storage
- Ultrasound Image Storage Retired
- Ultrasound Image Storage
- Ultrasound Multiframe Image Storage
- Ultrasound Multiframe Image Storage retired
- MR Image Storage
- SC Image Storage
- X-Ray Angiographic Image Storage
- X-Ray Radiofluoroscopic Image Storage
- Nuclear Medicine Image Storage
- Positron Emission Tomography Image Storage
- Radio Therapy Image Storage
- Radio Therapy Dose Storage
- Radio Therapy Plan Storage
- Radio Therapy Structure Set Storage
- Radio Therapy Beams Treatment Record Storage
- Radio Therapy Brachy Treatment Record Storage
- Radio Therapy Treatment Summary Record Storage
- Digital X-Ray Image Storage - For Presentation
- Digital X-Ray Image Storage - For Processing
- Digital Mammography X-Ray Image Storage - For Presentation
- Digital Mammography X-Ray Image Storage - For Processing
- Digital Intra-Oral X-Ray Image Storage - For Presentation
- Digital Intra-Oral X-Ray Image Storage - For Processing
- Hardcopy Color Image Storage
- Hardcopy Grayscale Image Storage

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

- o VL Endoscopic Image Storage
- o VL Microscopic Image Storage
- o VL Photographic Image Storage
- o VL Slide-Coordinates Microscopic Image Storage
- o Basic Text SR
- o Enhanced SR
- o Comprehensive SR
- o Mammography CAD SR

The Siemens MagicView 300 provides Standard Conformance to the following DICOM Storage Commitment SOP Classes as an SCU and SCP:

Storage Commitment SOP Classes as SCU and SCP

- o Storage Commitment Push Model

The Siemens MagicView 300 provides Standard Conformance to the following DICOM Query/Retrieve SOP Classes as an SCU and SCP:

Query/Retrieve SOP Classes as SCU and SCP

- o Patient Root Query/Retrieve Information Model - FIND
- o Patient Root Query/Retrieve Information Model - MOVE
- o Patient Study Only Query/Retrieve Information Model - FIND
- o Patient Study Only Query/Retrieve Information Model - MOVE
- o Study Root Query/Retrieve Information Model - FIND
- o Study Root Query/Retrieve Information Model - MOVE

The Siemens MagicView 300 provides Standard Conformance to the following DICOM Modality Worklist SOP Class as an SCU:

Modality Worklist SOP Class as SCU

- o Modality Worklist Information Model - FIND

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Print Management SOP Class as SCU

- o Basic Grayscale Print Management
- o Basic Color Print Management

Media Storage Service Class as FSR, FSC and FSU

- o General Purpose CD-R and DVD Interchange Profiles with Basic Directory and Composite Image & Standalone Storage
  - – or configurable:
- o Ultrasound Application Profile for Image Display with Single or Multiframe images with Basic Directory and Composite Image & Standalone Storage

3.1.1 Association Establishment Policies

3.1.1.1 General

The configuration of the Siemens MagicView 300 defines the Application Entity Title, the port numbers and the host name and net address.

3.1.1.2 Number of Associations

NI send initiates only one association at a time.

NI receive accepts multiple associations from different remote DICOM AEs at a time. There may be several concurrent associations active and processed in parallel. The maximum of open associations are 10.

NI query user initiates up to 25 associations at a time for C-Find and may initiate up to 10 associations at a time for C-Move.

NI query Provider accepts multiple associations from different remote DICOM AEs at a time. There may be several concurrent associations active and processed in parallel. The maximum of open associations are 10.

NI worklist initiates only one association at a time.

DBP initiates one association at a time for DICOM Basic Print. Each Print job in the queue opens a fresh assocation and the association is closed after the job is done.

3.1.1.3 Asynchronous Nature

This version of the software does not support asynchronous communication (multiple outstanding transactions over a single association).

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.1.4 Implementation Identifying Information

The Siemens MagicView 300 provides an Implementation Class UID of

- "1.3.12.2.1107.5.8.2"

and an Implementation Version Name of

- "SHS_MV300_VA42A".

3.1.2 Association Initiation Policy

The Siemens MagicView 300 attempts to initiate a new association for

- DIMSE-C-STORE
- DIMSE-C-FIND
- DIMSE-C-MOVE
- DIMSE-N-ACTION
- DIMSE-N-EVENT-REPORT
- DIMSE-N-CREATE
- DIMSE-N-GET
- DIMSE-N-SET

service operations.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.2.1 Real-World Activity - Verification SCU (C-ECHO request)

3.1.2.1.1 Associated Real-World Activity

The associated Real-World activity is a C-ECHO request. This function is contained in a MagicView 300 Service utility, which is part of the Software delivered with MagigView 300. If the process successfully establishes an association to a remote Application Entity, it will send the C-ECHO-Request via the open association to verify that the remote Application Entity is responding to DICOM messages.

3.1.2.1.2 Proposed Presentation Contexts

The Siemens DICOM application will propose Presentation Contexts as shown in the following table:

Table 1: *Verification SCU Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended**
Name	**UID**	**Name List**	**UID List**		**Negotiation**
Verification	1.2.840.10008.1.1	Implicit VR Little Endian Explicit VR Big Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

3.1.2.1.3 SOP Specific Conformance Statement - Verification SCU

The Application conforms to the definition of a Verification SCU in accordance to the DICOM Standard.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.2.2 Real-World Activity - Send Image Objects to a Remote Node

3.1.2.2.1 Associated Real-World Activity - Send Image Objects to a Remote Node

The associated Real-World activity is a C-Store request initiated by the user of the Viewing station. If NI send successfully establishes an association to a remote Application Entity, it transfers each image of the study or series one after another via the open association. If the C-Store Response from the remote Application contains a status other than Success, the association is aborted. After a configurable time period, the transfer of the folder is started again. If the Retry fails several times, the foldername will be logged on a history queue with status Failed.

The DICOM targets are configured at configuration time.

3.1.2.2.2 Proposed Presentation Contexts

The Siemens MagicView will propose Presentation Contexts as shown in the following tables.

Table 2: *STORE SCU Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
CR Image Storage	1.2.840.10008.5.1.4.1.1.**1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[a] JPEG Extended (Process 2 und 4) Lossy[b] JPEG Lossless, Non-Hierarchical (Process 14)[c]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
CT Image Storage	1.2.840.10008.5.1.4.1.1.**2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.
Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

MR Image Storage	1.2.840.10008.5.1.4.1.1.**4**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Ultrasound Image Storage Retired	1.2.840.10008.5.1.4.1.1.**6**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Ultrasound Multi-frame Image Storage Retired	1.2.840.10008.5.1.4.1.1.**3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
SC Image Storage	1.2.840.10008.5.1.4.1.1.**7**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

X-Ray Angiographic Image Storage	1.2.840.10008.5 1.4.1.1.**12.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5 1.4.1.1.**12.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Nuclear Medicine Image Storage	1.2.840.10008.5 1.4.1.1.**20**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Ultrasound Image Storage	1.2.840.10008.5**.** 1.4.1.1.**6.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.**3.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.**128**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Radio Therapy Image Storage	1.2.840.10008.5.1.4.1.1.**481.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Radio Therapy Dose Storage	1.2.840.10008.5.1.4.1.1.**481.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Radio Therapy Plan Storage	1.2.840.10008.5.1.4.1.1.**481.5**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Radio Therapy Structure Set Storage	1.2.840.10008.5**.** 1.4.1.1.**481.3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Radio Therapy Beams Treatment Record Storage	1.2.840.10008.5**.** 1.4.1.1.**481.4**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Radio Therapy Brachy Treatment Record Storage	1.2.840.10008.5**.** 1.4.1.1.**481.6**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Radio Therapy Treatment Record Storage	1.2.840.10008.5**.** 1.4.1.1.**481.7**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5.1. 4.1.1.**1.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Digital X-Ray Image Storage - For Processing	1.2.840.10008.5.1. 4.1.1.**1.1.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Digital Mammpgraphy X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.**1.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Digital Mammpgraphy X-Ray Image Storage - For Processing	1.2.840.100008.5.1.4.1.1.**1.2.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Digital Intra-Oral X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.**1.3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Digital Intra-Oral X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.**1.3.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Hardcopy Grayscale Image Storage	1.2.840.10008.5.1.1.29	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCU	None
Hardcopy Color Image Storage	1.2.840.10008.5.1.1.30	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50	SCU	None
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.70	SCU	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.70	SCU	None
VL Slide-Coordinates Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.3	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.70	SCU	None
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.70	SCU	None
Basic Text SR	1.2.840.10008.5.1.4.1.1.**88.11**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Enhanced Text SR	1.2.840.10008.5.1.4.1.1.**88.22**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Comprehensive SR	1.2.840.10008.5.1.4.1.1.**88.33**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Mammography CAD SR	1.2.840.10008.5**.** 1.4.1.1.**88.50**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

a. If Lossy JPEG is selected at Send Dialog of the Application (8 bit images)
b. If Lossy JPEG is selected at Send Dialog of the Application
c. If Lossless JPEG is selected at Send Dialog of the Application

The default proposed transfer syntax is DICOM Implicit VR Little Endian Transfer Syntax.

3.1.2.2.3 SOP Specific Conformance Statement

The DICOM images sent by the Siemens MagicView 300 conform to the DICOM IOD definitions (Standard extended IODs).

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.2.3 Real-World Activity - Query the Image Database of a Remote Node

3.1.2.3.1 Associated Real-World Activity - Query the Image Database of a Remote Node

The associated Real-World activity is a C-Find request initiated by the user of the Viewing station.The user specifies some attributes, the remote Application should use to query the database. If NI query user successfully establishes an association to the remote Application Entity, it will send one C-Find requests (according to the query model) and will then return the results to the Application of the MagicView 300.

3.1.2.3.2 Proposed Presentation Contexts

The Siemens MagicView 300 will propose Presentation Contexts as shown in the following tables.

Table 3: *Query SCU Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Patient Root Query/ Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.1.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	Yes
Patient Study Only Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.3.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	Yes
Study Root Query/ Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.2.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	Yes

The default proposed transfer syntax is DICOM Implicit VR Little Endian Transfer Syntax. The default SOP Class UID is Patient Root Query/Retrieve Information Model.

3.1.2.3.3 SOP Specific Conformance Statement

NI query user uses hierarchical queries with retrieve level patient or study.

NI query user checks for the following status codes in the Query/Retrieve provider's response to the C-Find request:

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

- SUCCESS (0000): Matching is complete
- PENDING (FF00): Matches are continuing
- PENDING (FF01): Matches are continuing, no optional key support
- REFUSED (A700): Out of Resources
- CANCEL (FE00)

NI query user queries the following attributes:

Table 4: *Supported attributes at Patient Level*

Description	Tag
Patient's Name	(0010,0010)
Patient ID	(0010,0020)
Patient's Birth Date	(0010,0030)
Storage Media File Set ID	(0088,0130)
Storage Media File Set UID	(0088,0140)

Table 5: *Supported attributes at Study Level*

Description	Tag
Study Date	(0008,0020)
Study ID	(0020,0010)
Study Time	(0008,0030)
Accession Number	(0008,0050)
Referring Physician's Name	(0008,0090)
Name of Physician Reading Study	(0008,1060)
Study Description	(0008,1030)
Body Part Examined	(0018,0015)
Study Instance UID	(0020,000D)
Number of Study Related Images	(0020,1208)
Storage Media File Set ID	(0088,0130)
Storage Media File Set UID	(0088,0140)

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Table 6: *Supported Attributes at Series level:*

Description	Tag
Modality	(0008,0060)
Series Description	(0008,103E)
Series Instance UID	(0020,000E)
Series Number	(0020,0011)
Requested Procedure ID	(0040,1001)
Body Part Examined	(0018,0015)
Exam Status	(0095,"SIENET",0004)
Rebuild Status	(0095,"SIENET",000C)
Storage Media File Set ID	(0088,0130)
Storage Media File Set UID	(0088,0140)

The Tag (0088,0130) is used with SIEMENS MagicStore to display Folder Status: “INSTORE”, “NEAR-LINE” and “OFFLINE”. The Tag (0018,0015) is used with SIEMENS MagicStore to display Organ Names.

On Study Level the Patient Name contains always a value.

The Maximum of Query Responses is configured to 20 entries, to limit the Query Time. A message gives information, that more entries are available, but not displayed because of the Query criteria.
The Maximum value can be changed by Configuration up to 100.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.2.4 Real-World Activity - Retrieve Image Objects from a Remote Node

3.1.2.4.1 Associated Real-World Activity - Retrieve Image Objects from a Remote Node

The associated Real-World activity is a C-Move request initiated by the user of the Viewing Station.The user selects one study from a list generated as a result of the previous C-Find operation. If NI query user successfully establishes an association to the remote Application Entity, it will cause the calling application via a C-Move request to transfer the images to the local Application Entity. The transfer of the images will be done by a subsequent C-Store and will return the results of the store operation to the calling application.

3.1.2.4.2 Proposed Presentation Contexts

The Siemens MagicView 300 will propose Presentation Contexts as shown in the following tables.

Table 7: *C-Move SCU Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Patient Root Query/ Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.1.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Patient Study Only Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.3.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None
Study Root Query/ Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.2.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

The default proposed transfer syntax is DICOM Implicit VR Little Endian Transfer Syntax.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.2.4.3 SOP Specific Conformance Statement

The MagicView 300 Query/Retrieve SCU checks for the following status codes in the provider's response to a C-Move request:

- SUCCESS (0000): Matching is complete
- WARNING (B000): One or more Failures occured
- PENDING (FF00): Matches are continuing
- CANCEL (FE00)

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.2.5 Real-World Activity - Query Worklist of a Remote Node

3.1.2.5.1 Associated Real-World Activity - Query Worklist of a Remote Node

The associated Real-World acitvity is a C-Find request initiated by the user of the Viewing Station. The user specifies some attributes the remote Application should use to query its worklist database. If NI worklist successfully establishes an association to the remote Application Entity, it will send the C-Find request and will then return the results to the application of the MagicView 300.

3.1.2.5.2 Proposed Presentation Contexts

The Siemens MagicView 300 will propose Presentation Contexts as shown in the following table.

Table 8: *Basic Worklist SCU Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Modality Worklist Information Model - FIND	1.2.840.10008.5.1.4.31	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCU	None

The default proposed transfer syntax is DICOM Implicit VR Little Endian Transfer Syntax.

3.1.2.5.3 SOP Specific Conformance Statement

The following DICOM Tags are sent to the Worklist Provider by the MagicView 300:

R = Required, O = Optional

Table 9: *Supported search key attributes*

Description	Tag	Type
Accession Number	(0008,0050)	O
Modality	(0008,0060)	R
Referring Physician's Name	(0008,0090)	R
Patient’s Name	(0010,0010)	R
Patient’s Birth Date	(0010,0030)	O
Patient ID	(0010,0020)	R

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Description	Tag	Type
Patient's Sex	(0010,0040)	O
Study Instance UID	(0020,000D)	O
Scheduled Station AE Title	(0040,0001)	R
Scheduled Procedure Step Start Date	(0040,0002)	R
Scheduled Procedure Step Start Time	(0040,0003)	R
Scheduled Performing Physician's Name	(0040,0006)	R
Scheduled Procedure Step ID	(0040,0009)	O
Scheduled Procedure Step Sequence	(0040,0100)	R
Requested Procedure ID	(0040,1001)	O
RequestedProcedure Code Sequence	(0032,1064)	O
> Code Value	(0008,0010)	O
> Coding Scheme Designator	(0008,0102)	O
> Code Meaning	(0008,0104)	O
Requested Procedure Priority	(0040,1003)	O
Issuer of Patient ID	(0010,0021)	O

The following attributes are passed to the worklist provider as part of a sequence: Scheduled Performing Physician's Name, Scheduled Station AE Title, Modality, Requested Procedure ID, Scheduled Procedure Step Start Date, Scheduled Procedure Step Start Time, Scheduled Procedure Step ID, Code Value, Coding Scheme Designator, Code Meaning.

The following DICOM Tags are read from the Worklist Provider's response message:

R = Required, O = Optional

Table 10: *Supported return key attributes*

Description	Tag	Type
Accession Number	(0008,0050)	O
Modality	(0008,0060)	R
Referring Physician's Name	(0008,0090)	R
Series Description	(0008,103E)	O
Study Description	(0008,1030)	O
Patient's Name	(0010,0010)	R
Patient's Birth Date	(0010,0030)	O
Patient ID	(0010,0020)	R

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Description	Tag	Type
Patient's Sex	(0010,0040)	O
Study Instance UID	(0020,000D)	O
Series Instance UID	(0020,000E)	O
Study ID	(0020,0010)	O
Series Number	(0020,0011)	O
Study Comments	(0032,4000)	O
Scheduled Station AE Title	(0040,0001)	R
Scheduled Procedure Step Start Date	(0040,0002)	R
Scheduled Procedure Step Start Time	(0040,0003)	R
Scheduled Performing Physician's Name	(0040,0006)	R
Scheduled Procedure Step ID	(0040,0009)	O
Scheduled Procedure Step Sequence	(0040,0100)	R
Requested Procedure ID	(0040,1001)	O
RequestedProcedure Code Sequence	(0032,1064)	O
> Code Value	(0008,0010)	O
> Coding Scheme Designator	(0008,0102)	O
> Code Meaning	(0008,0104)	O
Requested Procedure Priority	(0040,1003)	O
Issuer of Patient ID	(0010,0021)	O

The following attributes are expected to be part of a sequence: Scheduled Performing Physician's Name, Scheduled Station AE Title, Modality, Scheduled Procedure Step Start Date, Scheduled Procedure Step Start Time, Scheduled Procedure Step ID, Study ID, Study Description, Code Value, Coding Scheme Designator, Code Meaning.

The MagicView 300 Basic Worklist SCU checks for the following status codes in the provider's response to the C-Find request:

- SUCCESS (0000): Matching is complete
- PENDING (FF00): Matches are continuing
- PENDING (FF01): Matches are continuing, no optional key support
- CANCEL (FE00)

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.2.6 Real-World Activity - Send Print Request to a Remote Node

Associated Real-World Activity - Send Print Request to a Remote Node

The associated Real-World activity is a folder print request initiated by the user of the workstation.
If the DBP successfully establishes an association to the remoteprinter Application Entity, it will send N_GET, N_CREATE, N_SET, N_ACTION and N_DELETE requests to the remote printer.

The Print Job SOP Class accepts is monitoring the printer status.

The Siemens MagicView 300 will propose Presentation Contexts as shown in the following tables.

Table 11: *MagicView 300 Print Management SCU Presentation Contexts of*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Basic Grayscale Print Management	1.2.840.10008.5.1.1.9	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCU	None
Basic Color Print Management Meta	1.2.840.10008.5.1.1.18	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCU	None

Siemens MagicView supports the following mandatory SOP Classes as defined by the Basic Grayscale Print Management Meta Class:

SOP Class Name	SOP Class UID
Basic Film Session SOP Class	1.2.840.10008.5.1.1.1
Basic Film Box SOP Class	1.2.840.10008.5.1.1.2
Basic Grayscale Image Box SOP Class	1.2.840.10008.5.1.1.4
Printer SOP Class	1.2.840.10008.5.1.1.16

DBP does not support any optional SOP Classes.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Siemens MagicView supports the following mandatory SOP Classes as defined by the Basic Color Print Management Meta Class:

SOP Class Name	SOP Class UID
Basic Film Session SOP Class	1.2.840.10008.5.1.1.1
Basic Film Box SOP Class	1.2.840.10008.5.1.1.2
Basic Color Image Box SOP Class	1.2.840.10008.5.1.1.4.1
Printer SOP Class	1.2.840.10008.5.1.1.16

Basic Film Session SOP Class

The Basic Film Session information object definition describes all the user defined parameters which are common for all the films of a film session. The Basic Film Session refers to one or more Basic Film Boxes, that are printed on a hardcopy printer.

Table 12: *Used DIMSE services*

DIMSE Service Element	Usage SCU/SCP
N-CREATE	M/M
N-DELETE	U/M

Table 13: *Supported N_CREATE attributes*

Attribute name	Tag	Usage SCU/SCP	Supported Values
Number of Copies	2000,0010	U/M	>0
Print Priority	2000,0020	U/M	HIGH MED LOW
Medium Type	2000,0030	U/M	CLEAR FILM BLUE FILM
Film Destination	2000,0040	U/M	PROCESSOR
Film Session Label	2000,0050	U/M	

After use the Basic Film Session is closed with N_DELETE.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Table 14: *Status handling*

Service Status	Meaning	Protocol Codes
Success	Film Session successfully created	0000
Warning	Memory allocation not supported	B600
Warning	Attribute Value Out of Range	0116
Warning	Film session printing (collation) is not supported	B601
Warning	Film session SOP Instance hierarchy does not contain Image Box SOP Instance (empty page)	B602
Warning	Image size is larger than image box size, the image has been demagnified.	B604
Failure	Missing attribute value	0121
Failure	Unable to create print job, print queue is full (Film Session)	C601
Failure	Image size is larger than image box size	C603
Failure	Insufficient memory in printer to store the image	C605
Failure	More than one VOI LUT Box contained in image	C606
Failure	No such argument	0114
Failure	Processing Failure	0110
Failure	Unrecognized Operation	0211

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Basic Film Box SOP Class

The Basic Film Box information object definition describes all the user defined parameters of one film of the film session. The Basic Film Box information description defines the presentation parameters which are common for all images on a given sheet of film.

Table 15: *Used DIMSE services*

DIMSE Service Element	Usage SCU/SCP
N-CREATE	M/M
N-ACTION	M/M

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Table 16: *Mandatory Film Box N-Create attributes*

Attribute name	Tag	Usage SCU/SCP	Supported Values
Image Display Format	2010,0010	M/M	STANDARD\1,1 STANDARD\2,1 STANDARD\1,2 STANDARD\2,2 STANDARD\2,3 STANDARD\3,3 STANDARD\3,4 STANDARD\4,4 STANDARD\4,5 STANDARD\5,6 ROW\2,3,3,3 ROW\3,4,4,4,4
Referenced Film Session Sequence	2010,0500	M/M	
>Referenced SOP Class UID	0008,1150	M/M	
>Referenced SOP Instance UID	0008,1155	M/M	
Referenced Image Box Sequence	2010,0510	-/M	
>Referenced SOP Class UID	0008,1150	-/M	
>Referenced SOP Instance UID	0008,1155	-/M	
Film Orientation	2010,0040	M/M	PORTRAIT, LANDSCAPE

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Table 16: *Mandatory Film Box N-Create attributes*

Attribute name	Tag	Usage SCU/SCP	Supported Values
Film Size ID	2010,0050	M/M	8INX10IN 8_5INX11IN 10INX12IN 10INX14IN 11INX14IN 11INX17IN 14INX14IN 14INX17IN 24CMX24CM 24CMX30CM
Magnification Type	2010,0060	M/M	REPLICATE BILINEAR CUBIC NONE
Smoothing Type	2010,0080	M/M	Values are defined in Conformance Statement. Only valid for Magnification Type (2010,0060) = CUBIC
Border Density	2010,0100	M/M	BLACK WHITE
Empty Image Density	2010,0110	M/M	BLACK WHITE
Min Density	2010,0120	M/M	>=0
Max Density	2010,0130	M/M	>0
Trim	2010,0140	M/M	YES NO
Configuration Information	2010,0150	M/M	CS000-CS999

N_ACTION is used to start printing.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Table 17: *Status handling*

Service Status	Meaning	Protocol Codes
Success	Film Box successfully created	0000
Warning	Requested Min Density or Max Density outside of printer's operating range. The printer will use its respective minimum or maximum density value instead.	B605
Warning	Film box does not contain image box (empty page) box (empty page)	B603
Warning	Image size is larger than image box size, the image has been demagnified.	B604
Failure	Invalid attribute value	0106
Failure	Unable to create print job SOP Instance, print queue is full (Film Box)	C602
Failure	Image size is larger than image box size	C603
Failure	Resource limitation	0213
Failed	Unrecognized Operation	0211

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Basic Grayscale Image Box SOP Class

The Basic Grayscale Image Box information object definition is the presentation of an image and image related data in the image area of a film. The Basic Image Box information description describes the presentation parameters and image pixel data which apply to a single image of a sheet of film.

Table 18: *Used DIMSE services*

DIMSE Service Element	Usage SCU/SCP
N-SET	M/M

Table 19: *Supported N_SET attributes*

Attribute name	Tag	Usage SCU/SCP	Supported Values
Image Position	2020,0010	M/M	Dependent on Display Format
Basic Grayscale Image Sequence	0020,0110	M/M	
>Sample Per Pixel	0028,0002	M/M	1
>Photometric Interpretation	0028,0004	M/M	MONOCHROME2
>Rows	0028,0010	M/M	Dependend on Printer and Format
>Columns	0028,0011	M/M	Dependend on Printer and Format
>Pixel Aspect Ratio	0028,0034	M/M	
>Bits Allocated	0028,0100	M/M	8
>Bits Stored	0028,0101	M/M	8
>High Bit	0028,0102	M/M	7
>Pixel Representation	0028,0103	M/M	0
>Pixel Data	7FE0,0010	M/M	

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Basic Color Image Box SOP Class

The Basic Color Image Box information object definition is the presentation of an image and image related data in the image area of a film. The Basic Image Box information description describes the presentation parameters and image pixel data which apply to a single image of a sheet of film.

Table 20: *Used DIMSE services*

DIMSE Service Element	Usage SCU/SCP
N-SET	M/M

Table 21: *Supported N_SET attributes*

Attribute name	Tag	Usage SCU/SCP	Supported Values
Image Position	2020,0010	M/M	Dependent on Display Format
Basic Color Image Sequence	0020,0111	M/M	
>Sample Per Pixel	0028,0002	M/M	1
>Photometric Interpretation	0028,0004	M/M	
>Planar Configuration	0028,0006	M/M	
>Rows	0028,0010	M/M	Dependend on Printer and Format
>Columns	0028,0011	M/M	Dependend on Printer and Format
>Pixel Aspect Ratio	0028,0034	M/M	
>Bits Allocated	0028,0100	M/M	8
>Bits Stored	0028,0101	M/M	8
>High Bit	0028,0102	M/M	7
>Pixel Representation	0028,0103	M/M	0
>Pixel Data	7FE0,0010	M/M	

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Printer SOP Class

The Printer SOP Class provides the possibility to monitor the status of the hardcopy printer in a synchronous way.

Table 22: *Used DIMSE services*

DIMSE Service Element	Usage SCU/SCP
N-GET	U/M

The MagicView 300 writes all warning and failure messages into alog file.

Table 23: *Mandatory Printer N-GET attributes.*

Attribute name	Tag	Usage SCU/SCP
Printer Status	2110,0010	U/M
Printer Status Info	2110,0020	U/M

SOP Specific Conformance Statement

Only one association will be processed at a time.

In case of a failure return status of the Print SCP, the current job will be suspended.

:

Table 24: *Default values for timing demands*

Definition	Registry Entry Default	Default Value
No. of retries on Print Error	PrintRetryNumber	5
Retry starts after a specified time interval	PrintRetryTimeDelay	180 sec.
Timeout on Printing	PrintReadMessageTimeout	300 sec.
Timeout of not closed association	AssocTimeout	10 Min.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.2.7 Real-World Activity - Storage Commitment SCU

3.1.2.7.1 Associated Real-World Activity

The MagicView 300 DICOM Application Entity acts as a Service Class User (SCU) for the Storage Commitment Push Model Service Class (i.e. it requests commitment for storage of instances previously sent). To do so, the MagicView 300 will issue a

- N-ACTION DIMSE to request commitment or a
- N-EVENT-REPORT DIMSE to respond to a received storage commitment request.

If the configuration setting "Automatic request for Storage Commitment" is enabled and the send destination is also configured as a storage commitment SCP, then the MV300 requests for a storage commitment of the instances which have been successfully sent.

As soon as a commitment is requested for a set of instances, the archived status of these instances in the local database will be set to "For Archival".
When the SC SCU receives teh corresponding notification status (N-Event-Report), it updates the archived status of these instances to "Archived" in case of success and "Not Archived" in case of failure.
The MV300 SC SCU waits for a configurable time for the commitment notification from the SC SCP. If the MV300 does not receive any notification within this duration, it updates the archived status of the referenced instances to "Not Archived" which means that the commitment request failed.
This timeout is termed as "Event Receipt Timeout" and the default value is 1 day.

3.1.2.7.2 Proposed Presentation Contexts

The MagicView 300 DICOM application will propose Presentation Contexts as shown in the following table:

Table 25: *SC SCU Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Storage Commitment Push Model	1.2.840.10008.1.20.1	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCU	None
		DICOM Explicit VR Big Endian Transfer Syntax,	1.2.840.10008.1.2.2		
		DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1		

3.1.2.7.3 SOP Specific Conformance Statement

Storage Commitment is supported for all the SOP class UIDs as mentioned in tables 2 and 27. The Referenced Study Component Sequence is not supported.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.3 Association Acceptance Policy

The Siemens MagicView 300 accepts a new association for

- o DIMSE-C-Echo
- o DIMSE-C-Store
- o DIMSE-C-Find
- o DIMSE-C-Move
- o DIMSE-N-Action
- o DIMSE-N-Event-Report

service operation.

3.1.3.1 Real-World Activity - Receive Echo

3.1.3.1.1 Associated Real-World Activity - respond to echo request

The associated Real-World activity is a C-Echo response by NI receive and NI query provider.

3.1.3.1.2 Proposed Presentation Contexts

The Siemens MagicView will accept Presentation Contexts as shown in the following table.

Table 26: *Echo SCP Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Verification Service Class	1.2.840.10008.1.1	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCP	None
		DICOM Explicit VR Big Endian Transfer Syntax	1.2.840.10008.1.2.2		
		DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1		

3.1.3.1.3 SOP Specific Conformance to the Verification SOP Class

The DICOM MagicView provides standard conformance to the DICOM Verification Service Class.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.3.2 Real-World Activity - Receive Image Objects from a Remote Node

3.1.3.2.1 Associated Real-World Activity -Receive Image Objects from a Remote Node

The associated Real-World activity is a C-Store request received by NI receive. After accepting an association from a remote DICOM AE, the NI receive thread receives the images via the open association.

Images are stored into the MV300 database as soon as they are received. After an image is stored into the database, NI sends a successful C-Store response back to the sender. This process repeats until
- association is closed by the sender or
- image storage fails due to some reason (in this case the MV300 sends a failure response and aborts the association or
- the association is lost (because of timeouts, network unexpectedly shutdown, ...).

3.1.3.2.2 Accepted Presentation Contexts

The Siemens MagicViews will accept Presentation Contexts as shown in the following tables.

Table 27: *STORE SCP Accepted Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
CR Image Storage	1.2.840.10008.5.1.4.1.1.**1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
CT Image Storage	1.2.840.10008.5.1.4.1.1.**2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.
Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

MR Image Storage	1.2.840.10008.5.1.4.1.1.**4**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Ultrasound Image Storage Retired	1.2.840.10008.5.1.4.1.1.**6**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Ultrasound Multi-frame Image Storage Retired	1.2.840.10008.5.1.4.1.1.**3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.**6.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14) RLE Lossless	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.5	SCP	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Ultrasound Multiframe Image Storage	1.2.840.10008.5**.1.4.1.1.3.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14) RLE Lossless	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.5	SCP	None
SC Image Storage	1.2.840.10008.5**.**1.4.1.1.**7**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
X-Ray Angiographic Image Storage	1.2.840.10008.5 1.4.1.1.**12.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5 1.4.1.1.**12.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Nuclear Medicine Image Storage	1.2.840.10008.5 1.4.1.1.**20**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Positron Emission Tomography Image Storage	1.2.840.10008.5**.** 1.4.1.1.**128**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Radio Therapy Image Storage	1.2.840.10008.5**.** 1.4.1.1.**481.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Radio Therapy Dose Storage	1.2.840.10008.5**.** 1.4.1.1.**481.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Radio Therapy Plan Storage	1.2.840.10008.5**.** 1.4.1.1.**481.5**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Radio Therapy Structure Set Storage	1.2.840.10008.5**.** 1.4.1.1.**481.3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Radio Therapy Beams Treatment Record Storage	1.2.840.10008.5**.** 1.4.1.1.**481.4**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Radio Therapy Brachy Treatment Record Storage	1.2.840.10008.5**.** 1.4.1.1.**481.6**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Radio Therapy Treatment Record Storage	1.2.840.10008.5**.** 1.4.1.1.**481.7**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5**.** 1.4.1.1.**1.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Digital X-Ray Image Storage - For Processing	1.2.840.10008.5.1. 4.1.1.**1.1.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Digital Mammography X-Ray Image Storage - For Presentation	1.2.840.10008.5**.** 1.4.1.1.**1.2**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Digital Mammpgraphy X-Ray Image Storage - For Processing	1.2.840.100008.5.1 .4.1.1.**1.2.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Digital Intra-Oral X-Ray Image Storage - For Presentation	1.2.840.10008.5**.** 1.4.1.1.**1.3**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy JPEG Extended (Process 2 und 4) Lossy JPEG Lossless, Non-Hierarchical (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Digital Intra-Oral X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.**1.3.1**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Hardcopy Gray-scale Image Storage	1.2.840.10008.5.1.1.29	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1] JPEG Extended (Process 2 und 4) Lossy[2] JPEG Lossless, Non-Hierarchical (Process 14)[3]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.51 1.2.840.10008.1.2.4.70	SCP	None
Hardcopy Color Image Storage	1.2.840.10008.5.1.1.30	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50	SCP	None
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50	SCP	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50	SCP	None
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50	SCP	None
VL Slide-Coordinates Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.3	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax JPEG Baseline (Process 1) Lossy[1]	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50	SCP	None
Basic Text SR	1.2.840.10008.5.1.4.1.1.**88.11**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Enhanced Text SR	1.2.840.10008.5.1.4.1.1.**88.22**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Comprehensive SR	1.2.840.10008.5.1.4.1.1.**88.33**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Mammography CAD SR	1.2.840.10008.5.1.4.1.1.**88.50**	DICOM Implicit VR Little Endian Transfer Syntax, DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.3.2.3 SOP Specific Conformance Statement

n.a.

3.1.3.3 Real World Activity - Receive Query Request from a Remote Node

3.1.3.3.1 Associated Real World Activity - Respond to Find Request

The associated Real-World activity is a C-Find request received by the NI query provider. After accepting an association from a remote DICOM AE the NI query provider receives the query requests via the open association and queries the database. For each match a result message is sent to the requesting remote node.

3.1.3.3.2 Accepted Presentation Contexts

The Siemens MagicViews will accept Presentation Contexts as shown in the following tables.

Table 28: *Query SCP Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Patient Root Query/ Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.1.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	Yes
Patient Study Only Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.3.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	Yes
Study Root Query/ Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.2.1	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	Yes

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.3.3.3 SOP Specific Conformance Statement

o Relational queries are supported.
The fields supported for relational query are:
a) Study Level:

o Relational queries are supported.
The fields supported for relational query are Study Date on Study Level and Modality, Body Part Examined, Series Description, Exam Status and Rebuild Status on Series Level.

o The query matching is case insensitive.

o The DICOM MagicView 300 Query Provider returns one of the following status codes:
– Success (0000): Matching is complete
– Pending (FF00): Matches are continuing
– Failed (A900): Invalid Parameters
– Refused (A700): Out of Resources
– Cancel (FE00)

3.1.3.3.3.1 Patient Root C-Find SOP Class Specific Conformance Statement

R = Required, U = Unique, O = Optional

Table 29: *Supported Patient Level Attributes*

Description	Tag	Type
Patient’s Name	(0010,0010)	R
PatientID	(0010,0020)	O
Patient’s Birth Date	(0010,0030)	O
Patient’s Sex	(0010,0040)	O

Table 30: *Supported Study Level Attributes*

Description	Tag	Type
Study Date	(0008,0020)	R
Study Time	(0008,0030)	R
Accession Number	(0008,0050)	R
Referring Physician's Name	(0008,0090)	O
Study Description	(0008,1030)	O
Study ID	(0020,0010)	R
Study Instance UID	(0020,000D)	U

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Description	Tag	Type
Number of Study related Images	(0020,1208)	O

Table 31: *Supported Series Level Attributes*

Description	Tag	Type
Modality	(0008,0060)	R
Series Description	(0008,103E)	O
Body Part Examined	(0018,0015)	O
Series Instance UID	(0020,000E)	U
Series Number	(0020,0011)	R
Requested Procedure ID	(0040,1001)	O
Number of Series Related Images	(0020,1209)	O
Storage Media File Set ID	(0088,0130)	O

3.1.3.3.3.2 Study Root C-Find SOP Class Specific Conformance Statement

Table 32: *Supported Study Level attributes*

Description	Tag	Type
Study Date	(0008,0020)	R
Study Time	(0008,0030)	R
Accession Number	(0008,0050)	R
Referring Physician's Name	(0008,0090)	O
Study Description	(0008,1030)	O
Patient’s Name	(0010,0010)	R
Patient’s Birth Date	(0010,0030)	O
Patient ID	(0010,0020)	O
Patient’s Sex	(0010,0040)	O
Study Instance UID	(0020,000D)	U
Study ID	(0020,0010)	R
Number of Study related Images	(0020,1208)	O

o The same Series level attributes as in the Patient Root C-Find SOP Class are supported.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.3.3.3.3 Patient/Study Only C-Find SOP Class Specific Conformance Statement

- The same Patient level attributes as in the Patient Root C-Find SOP Class are supported.
- The same Study level attributes as in the Patient Root C-Find SOP Class are supported.

3.1.3.4 Real-World Activity - Receive Transfer Request from a Remote Node

3.1.3.4.1 Associated Real-World Activity - Initiate Image Transfer

The associated Real-World activity is a C-Move request received by the NI query provider. After accepting an association from a remote DICOM AE, the NI query provider receives the move request via the open association and queries the database. The requested images are sent to the requested remote node.

3.1.3.4.2 Accepted Presentation Contexts

The Siemens MagicView 300 will accept Presentation Contexts as shown in the following table.

Table 33: *Retrieve SCP Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Patient Root Query/ Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.1.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Patient Study Only Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.3.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None
Study Root Query/ Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.2.2	DICOM Implicit VR Little Endian Transfer Syntax DICOM Explicit VR Big Endian Transfer Syntax, DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2 1.2.840.10008.1.2.2 1.2.840.10008.1.2.1	SCP	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.3.4.3 SOP Specific Conformance Statement

The NI query provider sends one of the following status codes to the Query/Retrieve SCU in response to a C-Move request:

- SUCCESS (0000): Matching is complete
- PENDING (FF00): Matches are continuing
- FAILED (A900): Invalid parameters
- FAILED (C001): Unable to process
- REFUSED (A801): Destination unknown
- CANCEL (FE00)

3.1.3.4.3.1 SOP Specific Conformance Statement for SOP Class C-Store

The NI query provider initiates C-Store sub-operations using the Presentation Contexts listed in 2.1.3.2.2.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.3.5 Real-World Activity - Storage Commitment SCP

3.1.3.5.1 Associated Real-World Activity

The MagicView 300 DICOM Application Entity acts as a Service Class Provider (SCP) for the Storage Commitment Push Model Service Class (i.e. it gives commitment to store previously received instances).
To do so, the MagicView 300 attempts to accept a

- N-ACTION DIMSE to receive a commitment request for the instance included or a
- N-EVENT-REPORT DIMSE to receive a storage commitment response from a previous request.

On receiving a commitment request, the SC SCP waits for a configured time for the referenced SOP instances to be successfully burnt onto a CD/DVD. If this does not happen within the configured time, it sends N-EVENT-REPORT to the SC SCU with the Event Type ID set to 2 and the failure reason always set to "The operation timed out".
The timeout is called the "Media Burn Timeout" and the default value is 1 day.

3.1.3.5.2 Proposed Presentation Contexts

The MagicView 300 DICOM application will propose Presentation Contexts as shown in the following table:

Table 34: *SC SCU Presentation Contexts of MagicView 300*

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Storage Commitment Push Model	1.2.840.10008.1.20.1	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCP	None
		DICOM Explicit VR Big Endian Transfer Syntax,	1.2.840.10008.1.2.2		
		DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1		

3.1.3.5.3 SOP Specific Conformance Statement

Storage Commitment is supported for all the SOP class UIDs as mentioned in tables 2 and 27. The Referenced Study Component Sequence is not supported.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

3.1.4 Transfer Syntax Selection

The Siemens MagicView 300 currently supports the Implicit Little Endian, Explicit Big Endian, Explicit Little Endian, JPEG Baseline(Process 1) Lossy, JPEG Extended (Process 2 und 4) Lossy, and JPEG Lossless Transfersyntaxes (detailed description see presentation context tables).

For Storage Service Class Provider, the Siemens MagicView 300 has following syntax priority Order:

1) JPEG Extended (Process 2 und 4) Lossy

2) JPEG Lossless, Non-Hierarchical (Process 14)

3) JPEG Baseline (Process 1) Lossy

4) Implicit Little Endian

5) Explicit Little Endian

6) Explicit Big Endian

7) RLE

The transfer syntax priority order for the Query/Retrieve Provider is:

1) Implicit VR Little Endian

2) Explicit VR Little Endian

3) Explicit VR Big Endian.

On Verification SOP Class:

1) Implicit Little Endian

2) Explicit Big Endian

3) Explicit Little Endian.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

4 Communication Profiles

4.1 Supported Communication Stacks

Siemens MagicView 300 provides DICOM TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard.

4.1.1 TCP/IP Stack

Siemens MagicView 300 uses the TCP/IP stack from the Windows 2000/XP system upon which it executes.

4.1.1.1 Physical Media Support

Siemens MagicView 300 is independent of the physical medium over which TCP/IP executes.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

5 Extensions/Privatizations/Specializations

5.1 Standard Extended/ Specialized/Private SOPs

5.1.1 Mitra Report Management SOP Class

5.1.1.1 Real World Activity - Mitra Report Management

5.1.1.1.1 Associated Real World Activity - Mitra Report Management

The MagicView 300 can request reports via DICOM C-Find.

5.1.1.1.2 Presentation Context Table - Mitra Report Management

The MagicView 300 supports the presentation contexts listed in the following table
:

Table 35: *Presentation Contexts*

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Mitra Report Info Model - FIND	1.2.840.113532.3500.8	DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2	SCU	None

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

5.1.1.1.3 SOP Specific Conformance - Mitra Report Management

The MagicView 300 provides conformance to a Mitra private SOP Class used to fetch report information. The MagicView 300 supports the following elements for this SOP Class. The SCP is supposed to include all supported attributes in its response, independent of which attributes are included in the query.

The MagicView 300 is able to use the Requested Procedure ID as matching key even if the SCP only supports it as return key.

Table 36: *Mitra Report Information Model Attributes*

Message Field	Tag	Matching Key Type SCU	Return Key Type SCU
Accession Number	(0008, 0050)	Yes	Yes
Patient's Name	(0010, 0010)	Yes	Yes
Patient ID	(0010, 0020)	Yes	Yes
Patient's Birth Date	(0010, 0030)	Yes	Yes
Requested Procedure Description	(0032, 1060)	No	Yes
Requested Procedure Code Sequence	(0032, 1064)	No	Yes
>Code Value	(0008, 0100)	No	Yes
>Coding Scheme Designator	(0008, 0102)	No	Yes
>Code Meaning	(0008, 0104)	No	Yes
Requested Procedure ID	(0040, 1001)	Yes	Yes
Results ID Issuer	(4008, 0042)	No	Yes
Interpretation Approval Time	(4008, 0013)	No	Yes
Physicians Approving Interpretation	(4008, 0014)	No	Yes
Interpretation Recorded Date	(4008, 0100)	No	Yes
Interpretation Recorded Time	(4008, 0101)	No	Yes
Interpretation Recorder	(4008, 0102)	No	Yes
Interpretation Transcriber	(4008, 010A)	No	Yes
Interpretation Text	(4008, 010B)	No	Yes
Interpretation Author	(4008, 010C)	No	Yes
Interpretation Approver Sequence	(4008, 0111)	No	Yes
>Interpretation Approval Date	(4008, 0112)	No	Yes
>Interpretation Approval Time	(4008, 0113)	No	Yes
>Physician Approving Interpretation	(4008, 0114)	No	Yes
Interpretation Diagnosis Description	(4008, 0115)	No	Yes
Interpretation ID	(4008, 0200)	No	Yes
Interpretation Status ID	(4008, 0212)	No	Yes

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

5.2 Private Transfer Syntaxes

None.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

6 Configuration

6.1 AE Title / Presentation Address Mapping

The Siemens MagicView 300 maps Application Entity Titles to host name and port number via an internal configuration method. The IP address for the host name is determined using standard system calls.

For each DICOM MagicView 300 **default** unique Application Entity Titles are assigned using the following mechanism:

Each Application Entity Title starts with “MV300_” and has added the Serial Number, eg. “MV300_0032” for MagicView 300.

The AE Titles can be changed with the configuration, the Port No. for the Storage SCP and the Query/ Retrieve SCP is 104.

6.2 Configurable Parameters

- The Application Entity Titles, host names and port numbers.
- PDU size is set to 16384
- time-out for accepting/rejecting an association request: 300 sec
- time-out for responding to an association open/close request: 300 sec
- time-out for accepting a message over the network: 300 sec
  - All this Timeout values can be changed via Configuration
- Number of max. accepted Query Matches
- automatic request for Storage Commitment
- Event Receipt Timeout
- Media Burn Timeout
- Enable Storage Commitment Provider (MV300 acts as a SC SCP only if this is enabled)

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

7 Support of Extended Character Sets

The Siemens DICOM application supports the ISO 8859 Latin 1 (ISO-IR 100) character set.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Part II - Media Storage

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

8 Introduction

8.1 Purpose

This DICOM Conformance Statement is written according to part PS 3.2 of [2].

The applications described in this DICOM Conformance Statement are the SIEMENS MagicView 300 VA40A DICOM off-line media applications. The MagicView 300 DICOM off-line media storage service implementation acts as FSC, FSU and FSR for the specified application profiles and the related SOP Class instances.

8.2 Definitions, Abbreviations

8.2.1 Definitions

DICOM Digital Imaging and Communications in Medicine

DIMSE DICOM Message Service Element

DIMSE-C DICOM Message Service Element with Composite information objects

8.2.2 Abbreviations

ACR	American College of Radiology
AE	DICOM Application Entity
ASCII	American Standard Code for Information Interchange
DB	Database
DCS	DICOM Conformance Statement
FSC	File Set Creator
FSR	File Set Reader
FSU	File Set Updater
IOD	DICOM Information Object Definition
ISO	International Standard Organization
R	Required Key Attribute
NEMA	National Electrical Manufacturers Association
O	Optional Key Attribute
PDU	DICOM Protocol Data Unit
RWA	Real-World Activity
U	Unique Key Attribute

8.3 References

[2] Digital Imaging and Communications in Medicine (DICOM), NEMA PS 3.1-15

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

8.4 Connectivity and Interoperability

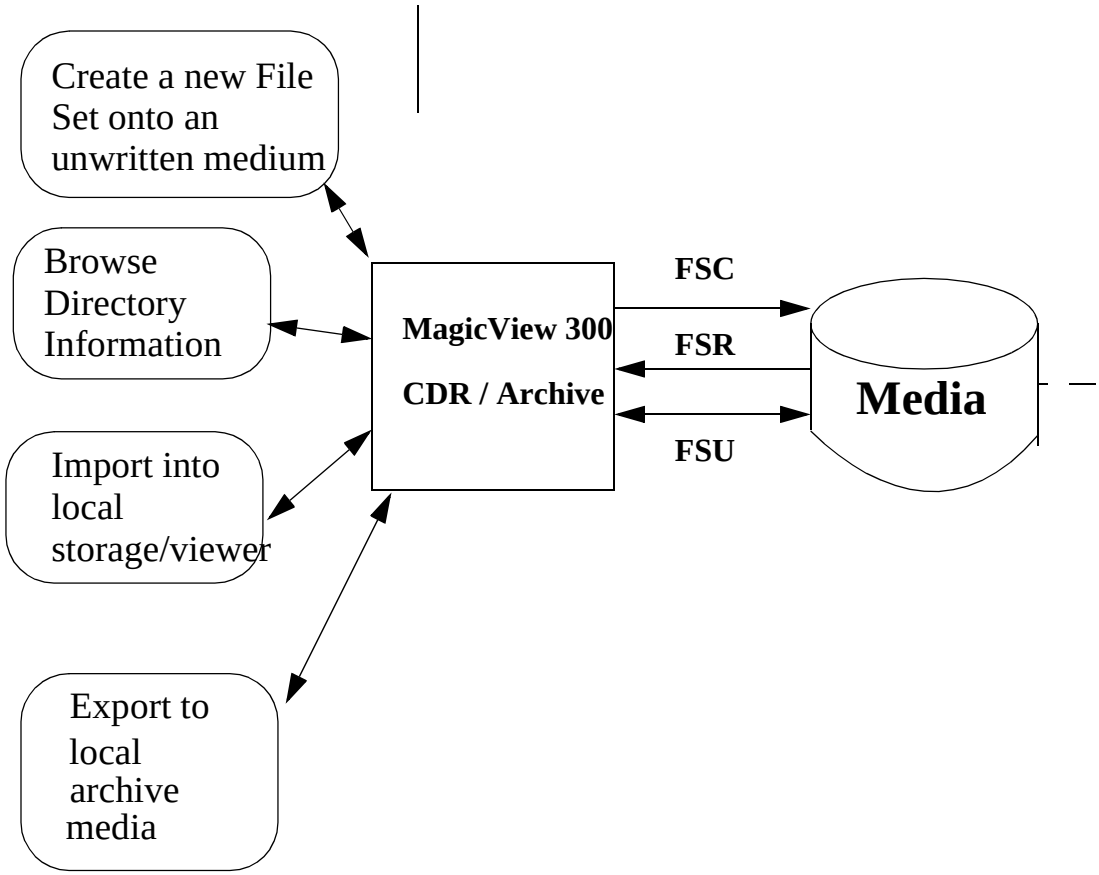
The implementation of the Siemens DICOM interface has been carefully tested to assure correspondence with this DICOM Conformance Statement. But the Conformance Statement and the DICOM standard does not guarantee interoperability of Siemens modalities and modalities of other vendors. The user must compare the relevant DICOM Conformance Statements and if a successful interconnection should be possible, the user is responsible to specify an appropriate test suite and to validate the interoperability, which is required. A network environment may need additional functions out of the scope of DICOM.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

9 Implementation Model

9.1 Application Data Flow Diagram



The MagicView 300 CDR/Archive application will serve as an interface to the CD-R or DVD-RAM medium device. It serves interfaces to include the off-line media directory into the browser and to copy SOP instances to a medium or retrieve SOP Instances from medium into local storage.

The MagicView 300 CDR/Archive application will support CD-R and DVD-RAM media (see Table 37:).

The FSU role will update new SOP Instances only to media with pre-existing File-sets conforming to the Application Profiles supported.

The contents of the DICOMDIR will be temporarily stored in Archive-Database.

9.2 Functional definitions of Application Entities

The MagicView 300 VA40A DICOM off-line media storage application consists of the MagicView 300 CDR/Archive application entity serving all interfaces to access off-line media. The MagicView 300 CDR/ Archive application is capable of

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

creating a new File-set onto an unwritten medium.

updating an existing File-set by writing new SOP Instances onto the medium.

copying SOP Instances from the medium onto local storage or loading them into viewer

reading the File-set's DICOMDIR information temporarily into database and pass it to display applications.

9.3 Sequencing of Real World Activities

The MagicView 300 CDR/Archive application will not perform updates before the Directory information of the DICOMDIR is completely read.

9.4 File Meta Information Options

The Implementation Class UID is:

"1.3.12.2.1107.5.8.2"

and an Implementation Version Name of

SHS_MV300_VA42A.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

10 Application Entity Specifications

10.1 MagicView 300 CDR/Archive Specification

The MagicView 300 CDR/Archive provides Standard conformance to Media Storage Service Class (Interchange Option).

Table 37: *Application profiles, Activities, and Roles for MagicView 300 CDR/Archive*

Application Profiles Supported	Real World Activity	Role	SC Option
STD-GEN-CD STD-GEN-DVD-RAM STD-US-ID-MF-CD STD-US-ID-MF-DVD-RAM AUG-US-ID-MF-CD AUG-US-ID-MF-DVD-RAM	Create new CD or DVD	FSC	Interchange
	Browse Directory Information	FSR	Interchange
	Import into local Storage	FSR	Interchange
	Export to local archive media	FSC,FSU	Interchange

Configuration of uncompressed Transfer Syntax for export will result in compatibility to the STD-GEN-CD profile.

10.1.1 File Meta Information for the Application Entity

The Source Application Entity Title is “MagicView 300”.

10.1.2 Real-World Activities for this Application Entity

10.1.2.1 Real-World Activity: Create new File Set onto an unwritten medium

The MagicView 300 CDR/Archive application acts as FSC using the interchange option when requested to initialize media.

The MagicView 300 CDR/Archive application will take the user provided list of SOP instances (which may be empty), and eliminate any SOP Instance on that list that does not correspond to one of the Application Profiles listed in Chapter 10.1.3 and Chapter 11. These SOP Instances are written onto the media and a corresponding DICOMDIR is created. The determination of the potentially applicable Application Profile is dependent on the type of media. This is determined by the drive and associated software on which the AE has been invoked.

10.1.2.1.1 Application Profiles for the RWA: Create new File Set onto an unwritten medium

See Table 37: for the Application Profiles listed that invoke this Application Entity for the Create new Dile Set onto an unwritten medium Real World Activity.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

10.1.2.2 Real-World Activity: Browse Directory Information

The MagicView 300 CDR/Archive application acts as FSR using the interchange option when requested to read the media directory.

The MagicView 300 CDR/Archive application will read the DICOMDIR and insert that directory entries, which are supported, into a local database. The database can the then be used for browsing media contents.

10.1.2.2.1 Application Profiles for the RWA: Browse Directory Information

See Table 37: for the Application Profiles listed that invoke this Application Entity for the Browse Directory Information Real World Activity.

10.1.2.3 Real-World Activity: Import into local Storage or Viewer

The MagicView 300 CDR/Archive application acts as FSR using the interchange option when requested to read SOP Instances from the medium into the local storage or the viewer.

The SOP Instance selected from the media directory will be copied into the local storage or loaded into the viewer. Only SOP Instances, that are supported, can be retrieved from media storage.

10.1.2.3.1 Application Profiles for the RWA: Import into local Storage or Viewer

See Table 37: for the Application Profiles listed that invoke this Application Entity for the Copy to Local Storage Real World Activity.

10.1.2.4 Real-World Activity: Export to local Archive Media

The MagicView 300 CDR/Archive application acts as FSU (for media with existing DICOM file-set) or FSC (media not initialized) using the interchange option when requested to copy SOP Instances from the local storage to local Archive medium.

The MagicView 300 CDR/Archive application will receive a list of SOP Instances to be copied to the local archive medium. According to the state of the medium inserted (new medium, Medium with DICOM file-set) the SOP Instances are either updated or created on the media. Only valid SOP Instances are accepted.

The MagicView 300 CDR/Archive application will not close the CD-R medium.

10.1.2.4.1 Application Profiles for the RWA: Export to local Archive Media

See Table 37: for the Application Profiles listed that invoke this Application Entity for the Copy to local Archive Real World Activity.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

10.1.3 Application profiles

10.1.3.1 STD-GEN-CD, STD-GEN-DVD-RAM

For media conforming to the STD-GEN-CD or STD-GEN-DVD-RAM Profile the following SOP classes will be supported as an FSR, FSC,FSU.

Transfer Syntax is always Explicit VR Little Endian Uncompressed.

Transfer Syntax UID is 1.2.840.10008.1.2.1

Table 38: *STD-GEN Supported SOP Classes*

Information Object Definitions	SOP Class UID
Basic Directory	1.2.840.10008.1.3.10
CR Image	1.2.840.10008.5.1.4.1.1.1
CT Image	1.2.840.10008.5.1.4.1.1.2
MR Image	1.2.840.10008.5.1.4.1.1.4
SC Image	1.2.840.10008.5.1.4.1.1.7
XA Image	1.2.840.10008.5.1.4.1.1.12.1
XRF-Image	1.2.840.10008.5.1.4.1.1.12.2
NM Image	1.2.840.10008.5.1.4.1.1.20
PET Image	1.2.840.10008.5.1.4.1.1.128
RT Image	1.2.840.10008.5.1.4.1.1.481.1
RT Dose	1.2.840.10008.5.1.4.1.1.481.2
RT Plan	1.2.840.10008.5.1.4.1.1.481.5
RT Structure Set	1.2.840.10008.5.1.4.1.1.481.3
RT Beams Treatment Record	1.2.840.10008.5.1.4.1.1.481.4
RT Brachy Treatment Record	1.2.840.10008.5.1.4.1.1.481.6
RT Treatment Record	1.2.840.10008.5.1.4.1.1.481.7
US Image	1.2.840.10008.5.1.4.1.1.6.1
US-MF image	1.2.840.10008.5.1.4.1.1.3.1
US Image Storage retired	1.2.840.10008.5.1.4.1.1.6
US Multiframe Image Storage retired	1.2.840.10008.5.1.4.1.1.3
Digital X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.1
Digital Mammography X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.2
Digital Intra-Oral X-Ray Image - For Presentation	1.2.840.10008.5.1.4.1.1.1.3

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Information Object Definitions	SOP Class UID
Hardcopy Greyscale Image	1.2.840.10008.5.1.1.29
Hardcopy Color Image	1.2.840.10008.5.1.1.30
VL Endoscopic Image	1.2.840.10008.5.1.4.1.1.77.1.1
VL Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2
VL Photographic Image	1.2.840.10008.5.1.4.1.1.77.1.4
Basic Text SR	1.2.840.10008.5.1.4.1.1.88.11
Enhanced Text SR	1.2.840.10008.5.1.4.1.1.88.22
Comprehensive SR	1.2.840.10008.5.1.4.1.1.88.33
Mammography CAD SR	1.2.840.10008.5.1.4.1.1.88.50

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

10.1.3.2 STD-US-ID-MF-CDR, STD-US-ID-MF-DVD-RAM(Single- and multiframe)

For media conforming to the STD-US-ID-MF-CDR or STD-US-ID-MF-DVD-RAM Profile the following SOP classes and transfer syntaxes will be supported as an FSR, FSC,FSU

Table 39: *STD-US-ID-MF-xxx Supported SOP Classes*

Information Object Definitions and SOP Class UID	Transfer Syntax and UID	FSC	FSR	FSU
Ultrasound Image 1.2.840.10008.5.1.4.1.1.6.1	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	yes	yes	yes
	JPEG Baseline (Process 1) 1.2.840.10008.1.2.4.50	no	yes	no
	RLE Lossless 1.2.840.10008.1.2.5	no	yes	no
Ultrasound Multiframe Image 1.2.840.10008.5.1.4.1.1.3.1	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	yes	yes	yes
	JPEG Baseline (Process 1) 1.2.840.10008.1.2.4.50	no	yes	no
	RLE Lossless 1.2.840.10008.1.2.5	no	yes	no

All Photometric Interpretations are supported by FSR/FSC/FSU:

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

11 Augmented Profiles

11.1 Augmented Application Profiles

The Augmentation adds the Retired US Formats to the Standard US Application Profiles

Table 40: *Augmented Application profiles, Activities, and Roles for MagicView 300 CDR/Archive*

Application Profiles Supported	Real World Activity	Role	SC Option
AUG-US-ID-MF-CDR AUG-US-ID-MF-DVD-RAM	Create CDR or DVD-RAM	FSC	Interchange
	Browse Directory Information	FSR	Interchange
	Import into local Storage or Viewer	FSR	Interchange
	Export to local archive media	FSC,FSU	Interchange

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

11.1.1 AUG-US-ID-MF-CDR, AUG-US-ID-MF-DVD-RAM

For media conforming to the AUG-US-ID-MF-CDR or AUG-US-ID-MF-DVD-RAM Profile the following SOP classes will be supported as an FSR, FSC,FSU

Table 41: *AUG-US-ID-MF-xxx Supported SOP Classes*

Information Object Definitions and SOP Class UID	Transfer Syntax and UID	FSC	FSR	FSU
US Image Storage retired 1.2.840.10008.5.1.4.1.1.6	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	yes	yes	yes
	JPEG Baseline (Process 1) 1.2.840.10008.1.2.4.50	no	yes	no
	RLE Lossless 1.2.840.10008.1.2.5	no	yes	no
US Multiframe Image Storage retired 1.2.840.10008.5.1.4.1.1.3	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	yes	yes	yes
	JPEG Baseline (Process 1) 1.2.840.10008.1.2.4.50	no	yes	no
	RLE Lossless 1.2.840.10008.1.2.5	no	yes	no

Appendix A: Requirements for Viewing of DICOM Images

Scope

This section of the MagicView 300 DICOM Conformance Statement documents the required DICOM Tags for the Viewing application.

Requirements for Display and Evaluation

- Tags (0028,1050),(0028,1051) Window Center and Width and Tags (0028,1052),(0028,1053) Rescale Slope and Intersept must have values, which allow the image to be displayed on another station.
- Following Pixel Representations are supported by the Viewer:

Attribute Name	DICOM Tag	16-bit unsigned	16-bit signed	15-bit	14-bit	13-bit	12-bit	10-bit	8-bit	8-bit
Bits allocated	(0028, 0100)	16	16	16	16	16	16	16	16	8
Bits stored	(0028, 0101)	16	16	15	14	13	12	10	8	8
High bit	(0028, 0102)	15	15	14	13	12	11	9	7	7
Pixel Representation	(0028,0103)	0	1	0	0	0	0	0	0	0

Note: If storing changed images, all 16-bit images are stored as 12 bit.

- Following Photometric Interpretations are supported by the Viewer:

Photometric Interpretation (0028,0004)	Planar Configuration (0028,0006)	Support Read	Support Store
RGB	0	Y	Y
RGB	1	Y	N
MONOCHROME1	n.a.	Y	Y
MONOCHROME2	n.a.	Y	Y
PALETTE COLOR	n.a.	Y	N
YBR_FULL*	1	Y	N
YBR_FULL_422*	0	Y	N
YBR_PARTIAL_422*	0	Y	N

All color images other then Default (1. Line) are converted to Default at storage time.

*YBR images will be converted into RBG images and stored as RGB images.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Maximum Image Size: 10000 Rows and 10000 Columns. Bigger images cannot be loaded to Viewer.

Maximum No. of Frames for Multiframe: 1000.

These are the requirements for Display and Evaluations of the Viewing station. The Storage of images do not follow the current restrictions.

Requirements for Storage of Shutters

On Storing if there was a Shutter (Circular or Rectangle) painted by the User, the Shutter Module is stored into the DICOM Object also if it is not official Part of the IOD. The according Tags are 0018,1600 up to 0018,1612.

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Appendix B: Restrictions for Viewing of DICOM Images

The following DICOM images can be archived by the MagicView 300 application, but cannot displayed at the viewer:

- RT Dose
- RT Plan
- RT Structure Set
- RT Beams Treatment Record
- RT Brachy Treatment Record
- RT Treatment Summary Record
- Basic Text SR
- Enhanced SR
- Comprehensive SR
- Mammography CAD SR

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Index

I

Implementation **12**
Implementation Model **12**
IOD **11**

P

PLA **11**

S

SCP **11**
SCU **11**

U

UID **11**

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved. Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

This document has been created using Template "DICOM Conformance Statement", Rev. 0.1, 07-May-2001

Für dieses Dokument wurde Template "DICOM Conformance Statement", Rev. 0.1, 07-May-2001 verwendet.

Copyright © Siemens AG Medical Solutions, Health Services, 2003. All rights reserved. For internal use only.

Alle Rechte vorbehalten. Nur für internen Gebrauch.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen

Copyright © Siemens AG Medical Solutions, Health Services, 2003.
All rights reserved.Alle Rechte vorbehalten.

Siemens AG Medical Solutions, Health Services
Henkestr. 127, D-91052 Erlangen